

CLAIMS

What is claimed is:

5 1. A system for designing personalities for synthetic characters, comprising:

a personality trait selection device that displays at least one selectable personality trait; and

10 a personality builder that groups the selected personality traits into a character profile.

2. The system according to Claim 1, wherein:

15 said personality trait selection device comprises at least one trait indicator, each trait indicator representing an amount of a corresponding one of the selectable personality traits; and

20 said personality builder weights each selected personality trait in said character profile according the amount of each selected personality trait represented in the corresponding trait indicator.

25 3. The system according to Claim 2, wherein the trait indicators are graduated dials operating between a high anchor and a low anchor.

4. The system according to Claim 2, further comprising:

a personality attribute selection device that displays at least one selectable personality attribute; and

5 a mapper configured to map each selected personality attribute into amounts of the trait indicators according to an amount each selected personality attribute is represented in the selectable personality traits.

10 5. The system according to Claim 2, wherein the selectable personality traits include at least one primary trait of dominance, warmth, conscientiousness, emotional stability, and openness.

15 6. The system according to Claim 2, further comprising:

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20 a trait indicative behavior selection device that displays at least one selectable trait indicative behavior; and

a mapper configured to map each selected trait indicative behavior into amounts of the trait indicators according to an amount each selected personality attribute is represented in the selectable personality traits.

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7. The system according to Claim 1, wherein said character profile comprises a translation of the

selected personality traits into a weighted set of personality traits.

8. The system according to Claim 1, further comprising:

a physical modification device configured to modify physical characteristics of said synthetic character based on the character profile.

9. A method of rendering a personality, comprising the step of:

rendering at least one behavior of a synthetic character based on a character profile having selected personality traits.

10. The method according to Claim 9, wherein said step of rendering includes the step of:

specifying at least one trait indicative behavior; and

implementing behaviors consistent with the trait indicative behaviors.

11. The method according to Claim 10, wherein: said trait indicative behaviors include at least one primary behavior;

said step of specifying includes the step of specifying a set of releasing mechanisms associated with the specified primary behaviors; and

5 said step of rendering includes the steps of,
 interpreting stimuli external to said personality based on said set of releasing mechanisms, and

 rendering said at least one behavior of the synthetic character based on the interpreted external stimuli.

10 12. The method according to Claim 9, wherein said step of rendering comprises the steps of:

 specifying at least one secondary behavior; and
 implementing the secondary behaviors as one of
15 persistent and episodic behaviors.

 13. The method according to Claim 9, wherein said step of rendering comprises the step of:
 modulating an existing behavior based on the
20 character profile.

 14. The method according to Claim 9, wherein said step of rendering comprises the step of:
 modifying a construal process utilized by the
25 personality.

15. The method according to Claim 14, wherein said construal process includes processes for perception and assessment of situations in an environment of which the personality is located.

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16. A method of selecting behavior for a synthetic character, comprising the steps of:

computing an primary activation level of primary behaviors in each of plural nodes at a given level of a modified behavior hierarchy;

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selecting a node having a highest activation level; and

executing the primary behavior in accordance with an action defined by the selected node.

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17. The method according to Claim 16, further comprising the steps of:

computing an secondary activation level for at least one trait indicative secondary behavior in each of plural nodes at the given level of the behavior hierarchy;

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disregarding secondary behaviors that conflict with the selected primary behavior;

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selecting secondary behaviors based on the secondary behavior activation level computed;

repeating said steps of computing, disregarding, and selecting until no degrees of freedom unused by the

primary and selected secondary behaviors sufficient to activate any remaining secondary behaviors exist; and executing the selected secondary behaviors.

5 18. The method according to Claim 16, wherein:
said step of computing comprises,

 determining values, including at least one of a
level of interest, a value of inhibitory links, a value
of releasing mechanisms, a level of fatigue, and a
10 value of endogenous variables associated with a
behavior, for factors related to whether a behavior
should be activated, and

 computing said primary activation level based on
the values determined.

15 19. The method according to Claim 18, further
comprising the step of:

 increasing said level of fatigue associated with
a behavior based on a length of time said behavior has
20 been activated.

 20. The method according to Claim 19, further
comprising the step of:

 biasing an activation level for plan steps based
25 on a plan.